Program Announcements (PA'S)

MOLECULAR BIOLOGY OF SKELETAL MUSCLE AND ITS DISEASES

NIH Guide - Volume16, Number 5, February. 6, 1987

PA NUMBER: PA-87-02

P.T. 34; K.W. 0705050, 0710030, 1002008

National Institute of Arthritis and Musculoskeletal and Skin Diseases

The Muscle Biology Program supports research on the structure, function, disorders and diseases of skeletal muscle. This program announcement is to encourage submission of scientifically meritorious grant applications in the specific area of the molecular biology of muscle, including genetics relating to normal development and disease.

Certain muscle diseases, such as Duchenne Muscular Dystrophy (DMD), dystrophic myotonia, and malignant hyperthermia have specific genetic etiologies. Examples of faulty genetic expression are known to occur in muscle fibers affected by myotonic dystrophy and avian muscular dystrophy, where there are high levels of multiple expression or abnormal expression of neonatal myosin heavy chain. The complexity of skeletal muscle has made it difficult to identify the alteration in the genes or genomic transcription responsible for particular disorders. A confounding feature of muscle is the diversity of products from single genes, which appears to involve splicing in certain cases. Understanding the mechanisms of control may enable us to prevent expression of a defective gene or gene product.

Current genetic techniques promise to allow identification of genes or gene products which may underlie many muscle diseases. Advances in recent years indicate that there are research opportunities in this area, including the isolation of genes near the locus for Duchenne Muscular Dystrophy. Other researchers are investigating methods of variable genetic expression in normal muscle tissue. There is a need to understand the molecular biology of development in normal and diseased muscle.

This announcement encourages research applications focused on genes of normal skeletal muscle constituents and mechanisms of gene regulation and expression; altered genes and proteins associated with muscle diseases and disorders; and other aspects of the molecular biology of skeletal muscle development and structural organization, including protein function.

ELIGIBILITY

Non-profit organizations and institutions, governments and their agencies, for-profit organizations, and individuals are eligible to apply.

DEADLINE

Applications will be accepted in accordance with the announced receipt dates for new applications, listed in application kits.

REVIEW PROCEDURES AND CRITERIA

Applications should be submitted on form PHS-398 which is available in the institution's collaborative research or business office. Additional application kits may be obtained from the Office of Grants Inquiries, Division of Research Grants (DRG), NIH. The phrase "Prepared in Response to research Grants Announcement on Molecular Biology of Skeletal Muscle and Its Diseases" should be typed on line 2 of the first page of the application. The original and six copies of the application should be sent to:

Application Receipt Office
Division of Research Grants
National Institutes of Health
Westwood Building, Room 240
Bethesda, Maryland 20892

Applications in response to this solicitation will be reviewed on a nationwide basis in competition with other research grant applications, and in accord with the usual NIH peer review procedures. Applications will first be reviewed for technical merit by Study Sections and then by the National Advisory Council. The review criteria customarily employed by the NIH for regular research grant applications will prevail.

All PHS and NIH grant policies governing regular research project grants, including cost sharing, apply to applications received in response to this program announcement.

For further information contact:

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